PM-MMART 5 Deployment in Support of OIF

One of the Roles of the IHO

in Force Health Protection

What is a PM-MMART

- Forward Deployed Public Health Lab
- Characterize Disease, Vector, Occupational
  and Environmental Threats
- Site Assessment
- CBRNE
- TICs/TIMs

Who is a PM-MMART

- PMO
- Microbiologi
- IHO
- Entomologis
- EHO
- Adv Lab Tec
- 6 PMTs

A Long Road to Iraq

The Big Picture

PM-MMART 5

- OPCON to MARCENT
- TACON to CG 1st FSSG
- In support of CG I MEF in central Iraq
- Based in Ad Diwaniyah
- 8000 miles traveled

We’re Not in Kansas Anymore

IHO Role
Chemistry and Radiation Components

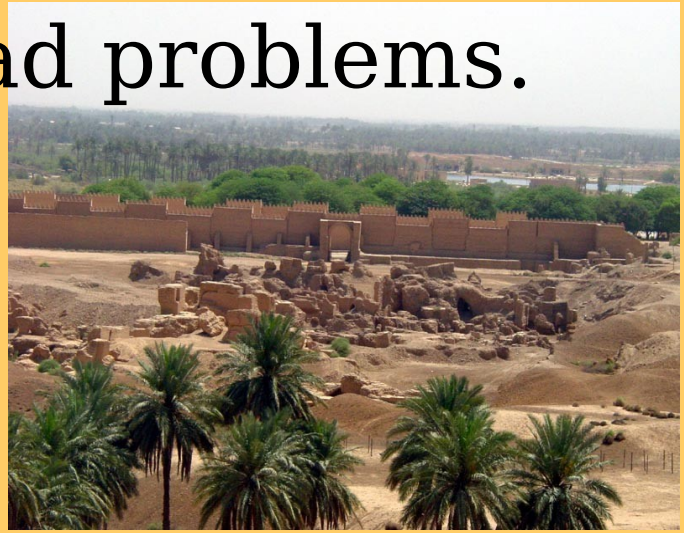
- “Traditional” IH
- Consultative
- On-Site Determinations
- Site Assessments (SA)
- Ionizing Radiation Surveys
- Risk Communication
- Equipment – Typical IH gear, lab gear to include GC/MS & FTIR, radiacs, SA gear

And the “white powder” is from a *light bulb?*...

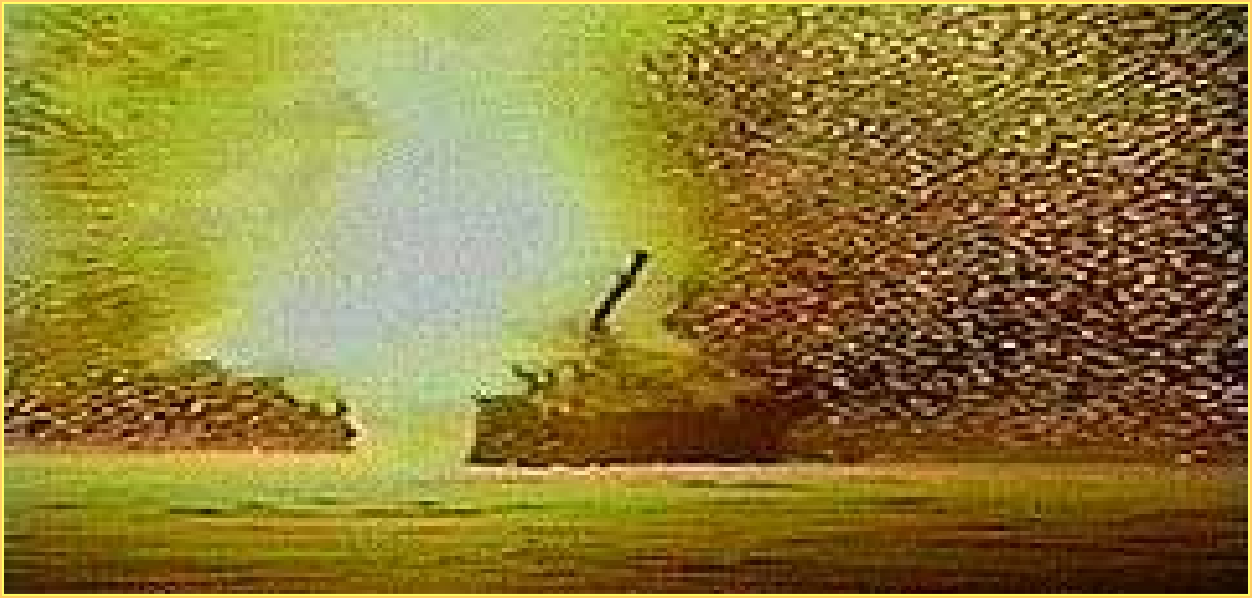
Positive ID of substance, on site, using FTIR.

What will they think of

Even the palace had problems.



- Positive ID of unknown VOCs on site leads to “field expedient” remediation



Once again DU is the MVP…

until the dust settles

that is.

This looks like a job for Level-A!

CW Agents

- **On site identification**
- **Rule out “false positives”**
- **Determine when safe to unmask**

LOD VX (mg/m^3):

CAM/ICAM – 0.1

M256A1 – 0.02

HAPSITE GC/MS – 0.0003

HAPSITE GC/MS

Source: MSDS (VX)

Route	Form	Effect	Type	Dosage *
Ocular	**Vapor**	Miosis	ECt50	0.09 mg-min/m^3
Inhalation	**Vapor**	Runny Nose	ECt50	0.09 mg-min/m^3
Inhalation (15 l/min)	**Vapor**	Severe Incapacitation	ICt50	25 mg-min/m^3
Inhalation (15 l/min)	**Vapor**	Death	LCt50	30 mg-min/m^3
Percutaneous	**Liquid**	Death	LD50	10 mg/70 kg man

* Effective dosages for vapor are estimated for exposured durations of 2-10 minutes.

Source: MEG (VX)

Health Effect Level	10-min (mg/m^3)	1-hour (mg/m^3)	8-hour (mg/m^3)	24-hour (mg/m^3)
Minimal	0.00020	0.000080	0.000028	0.000009
Significant	0.0024	0.00098	0.00035	0.0001
Severe	0.0096	0.0033	0.0013	0.0004

What the Heck is an Environmental Health Site Assessment?

And Who Cares???

EHSA / EBS

- Mandated by CJCS Memo 1 Feb 02
  - DHS is part of a comprehensive health surveillance system and a critical component of FHP.
- Army Medical Surveillance Activity
  - Manages the DMSS, the repository for all deployment health data.
- USA CHPPM
  - Funded for sampling mission. Provides us with the equipment, media, sample analysis, MEGs, and training.
- PM-MMART/ FD-PMU
  - Boots on the ground, conducting the surveys alongside USA and USAF counterparts.

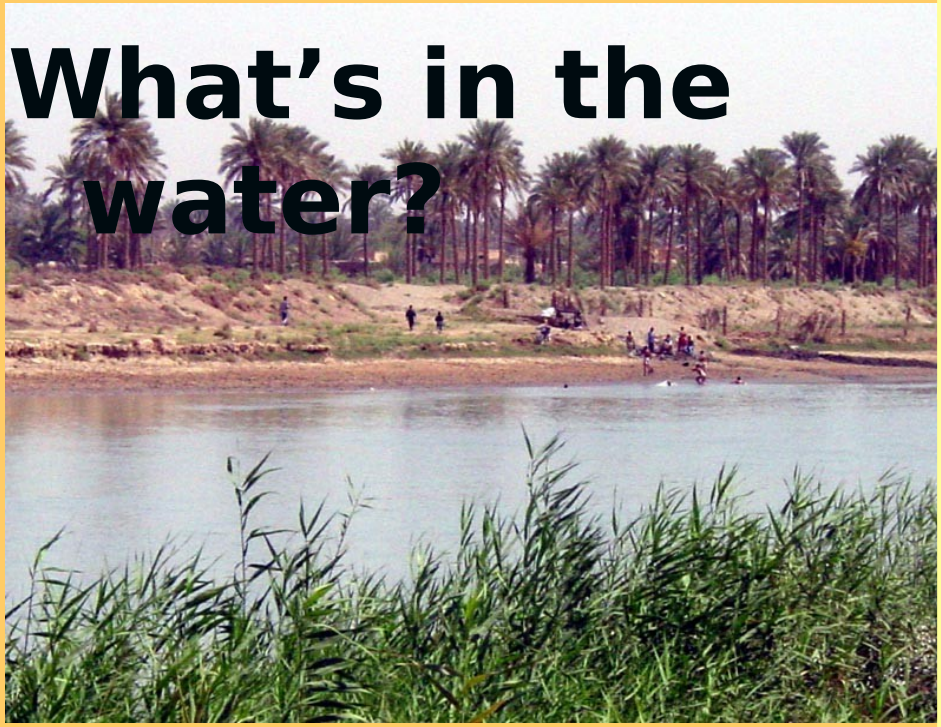
Site Assessments

- EPA Style Site Assessment
  - Military Exposure Guidelines (USACHPPM TG 230)
- What [redacted] he air, soil, v [redacted] by coalit
- Extensive sampling is done to determine and document presence/absence of 100's of contaminants of concern:
  - VOCs and less volatile chemicals, particulates, pesticides, radionuclides, heavy metals, etc.

The Dreaded Report

Site Assessments

Site Assessments



Site Assessments

What's in the soil?

Site Assessments

What's in the structures?

Summary

- **IHO Must Have:**
  - Common Sense
  - Thorough Understanding of Equipment
  - Good Risk Comm
- **IHO Receives:**
  - A Very Rewarding Experience!

Questions?